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INSTALLATION MANUAL

V-NET

- Please read this installation manual completely before installing the product.
- Installation work must be performed in accordance with the national wiring standards by authorized personnel only.
- Please retain this installation manual for future reference after reading it thoroughly.

TYPE : Dry contact Module for thermostat

MODELS
PQDSBNGCM1

P/NO : MFL42540217

www.lg.com

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Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

■ Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

⚠WARNING	This symbol indicates the possibility of death or serious injury.
⚠CAUTION	This symbol indicates the possibility of injury or damage.

■ Meanings of symbols used in this manual are as shown below.

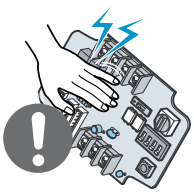
⃠	**Be sure not to do.**
❗	**Be sure to follow the instruction.**

⚠WARNING

■ During installation

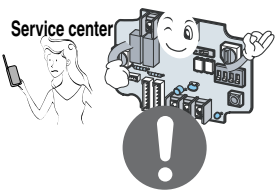
Do not touch the board when the power is connected.

- It can cause a fire, electric shock, explosion, injury and problem to the product.



Always request for installation of the product to the service center or the installation service provider.

- It can cause a fire, electric shock, explosion and injury.

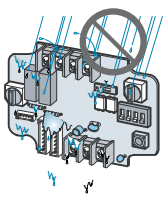


When reinstalling the previously installed product, request for service to the service center or the installation service provider.

- It can cause a fire, electric shock, explosion and injury.

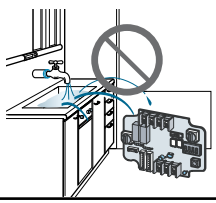
Do not install the product where it can be exposed to rain.

- It can cause problems to the product.



Do not install the product in a humid location.

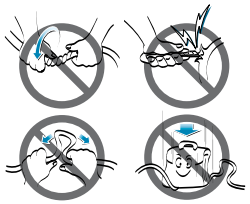
- It can cause problems to the product.



■ During use

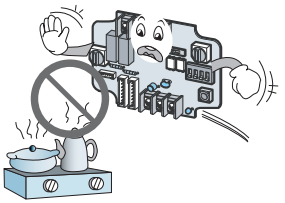
Do not modify or extend the power cord.

• It can cause a fire and electric shock.



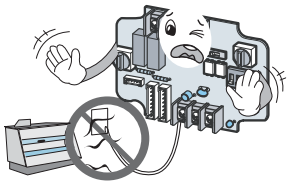
Do not use any flaming devices near the product.

• It can cause a fire.



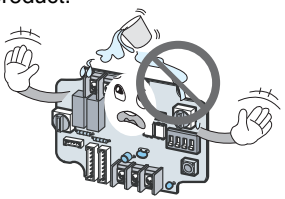
Do not use any heating devices near the power cord.

• It can cause a fire and electric shock.



Do not pour water inside the product.

• It can cause an electric shock and problem to the product.

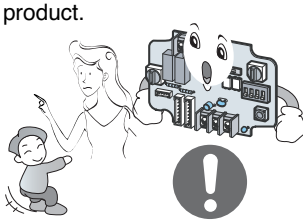


When the product is submersed in water, always request for service to the service center or the installation service provider.

• It can cause a fire and electric shock.

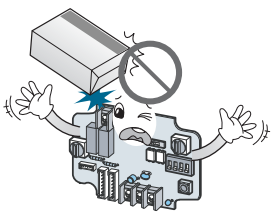
Make the children and the elderly use the product with the help of a guardian.

• It can cause a safety accident and problems to the product.

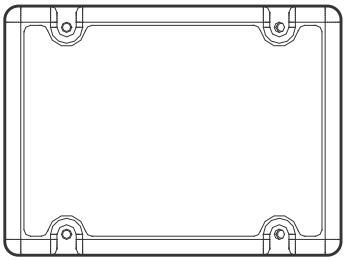


Do not give impact to the product.

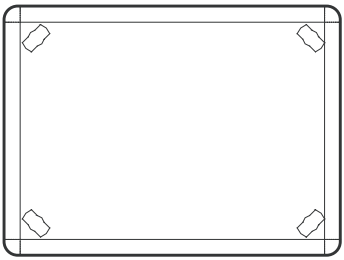
• It can cause problems to the product.



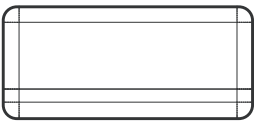
Name of each part



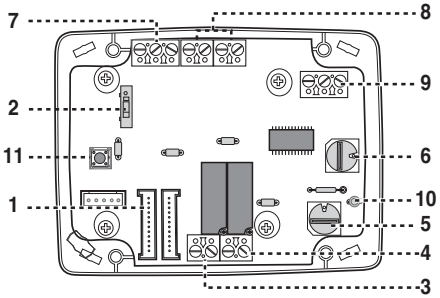
(Front case)



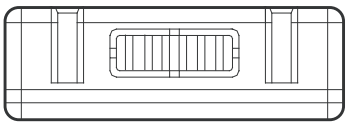
(Rear case)



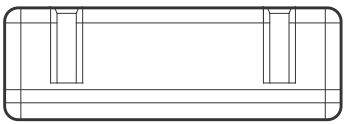
(Top)



(Internal PCB board)



(Side)



(Side)

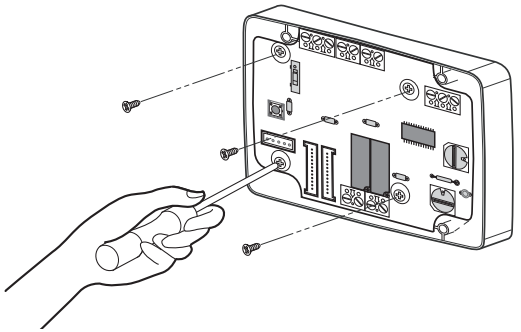
DRY CONTACT FOR COMMUNICATION (DRY_CONTACT FOR THERMOSTAT)

1. CN_INDOOR : Connector for indoor unit
2. CHANGE_OVER_SW : Switch to select External Voltage or Non Voltage for input contact signal
3. CN_OUT(O1,O2) : Output terminal to show whether the indoor unit is operating (Relay contact)
4. CN_OUT(E3,E4) : Output terminal to show whether there is an error with the indoor unit (Relay contact)
5. TEMP_SW : Switch to set the desired temperature of the indoor unit
6. SETTING_SW : Switch to select whether to use set function of Dry contact
7. CN_Ther/oper : Input terminal for thermo & operation signal
8. CN_MODE : Input terminal for Mode signal
9. CN_WIND : Input terminal for Wind signal
10. DISPLAY_LED : LED to display the status of Dry contact Module
11. RESET_SW : Reset switch

Installation Method

Installation inside of the indoor unit

① Loose 4 screws anchoring PCB and then separate PCB from the rear case



② Connect the connection wires according to the instructions. (Please refer to Setting and Using Method)

③ Perform the switch setting according to switch setting method. (Please refer to Setting and Using Method)

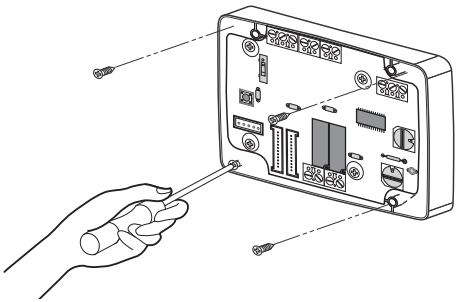
④ Fix PCB on suitable space inside of the indoor unit.

⚠ CAUTION

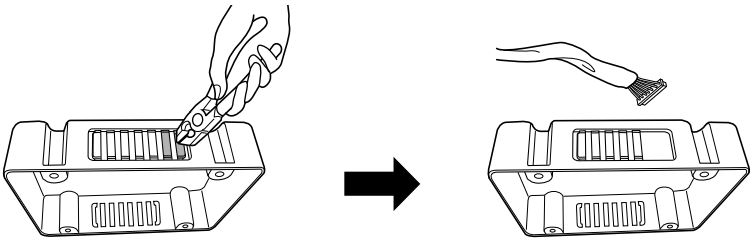
1. Install the product on flat surface and screw at least 2 places. Otherwise the Dry contact may not be anchored properly.
2. Do not screw too tightly. It may cause deformation of the case.
3. Do not deform the case at random. It may cause malfunction of the Dry contact.

Installation outside of the indoor unit

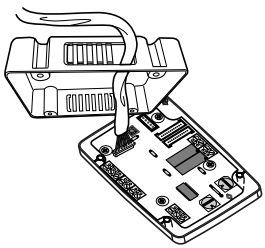
① Screw the rear case on the installation surface using screws.



② Please cut the pole which is located in side of the front case properly.

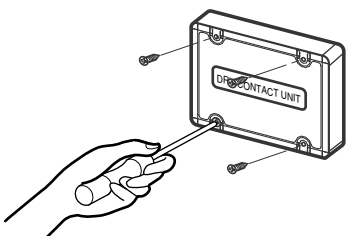


③ Connect connection wires according to the instructions.
(Reference to Setting and Using Method)
Then, connect wire to PCB after going through hole of ②.



④ Perform the switch setting according to switch setting method. (Reference to Setting and Using Method)

⑤ Join the front case and the rear case, anchor the front case at holes using anchor screws.



⚠ CAUTION

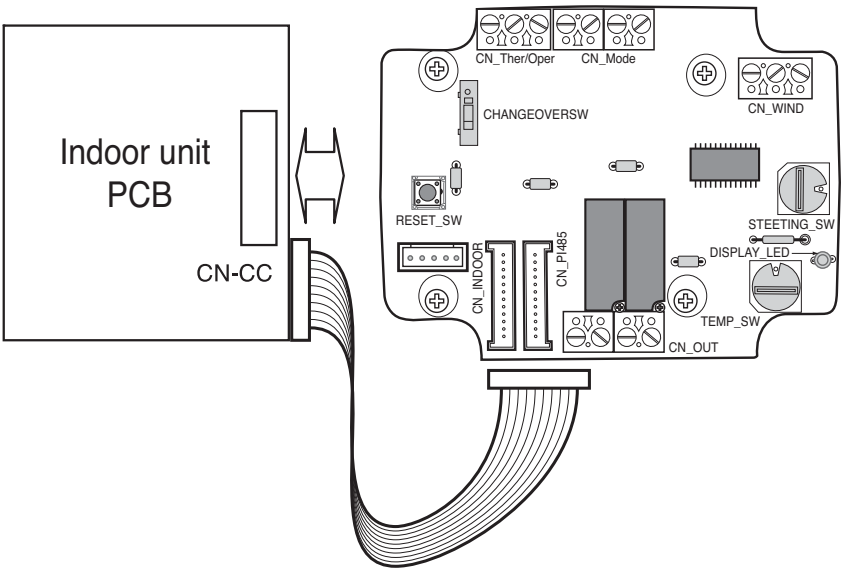
1. Install the product on flat surface and screw at least 2 places. Otherwise the Dry contact may not be anchored properly.
2. Do not screw too tightly. It may cause deformation of the case.
3. Do not deform the case at random. It may cause malfunction of the Dry contact.

Setting and using method

After change any Dry contact setting, then you must press RESET switch to reflect the setting.

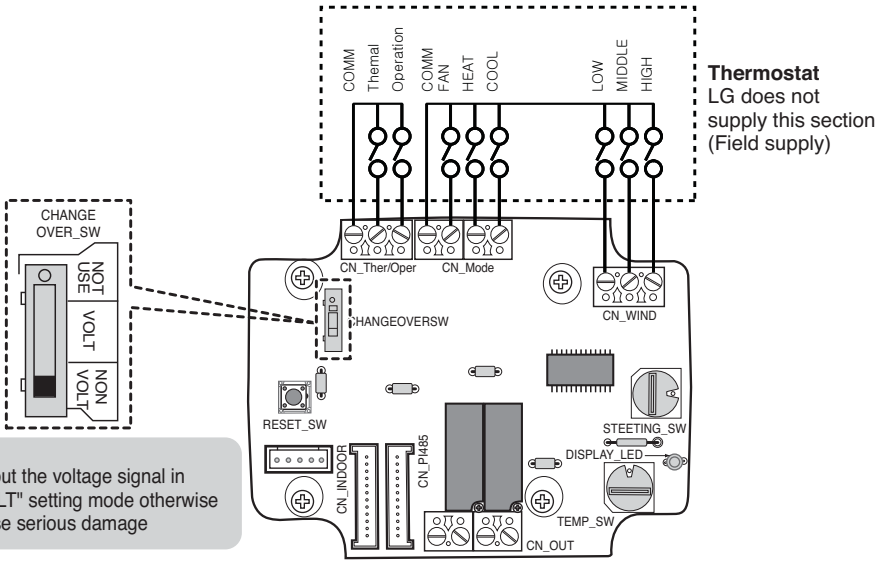
1. Power supply and indoor unit connection

■ When using the Dry contact for communication independently



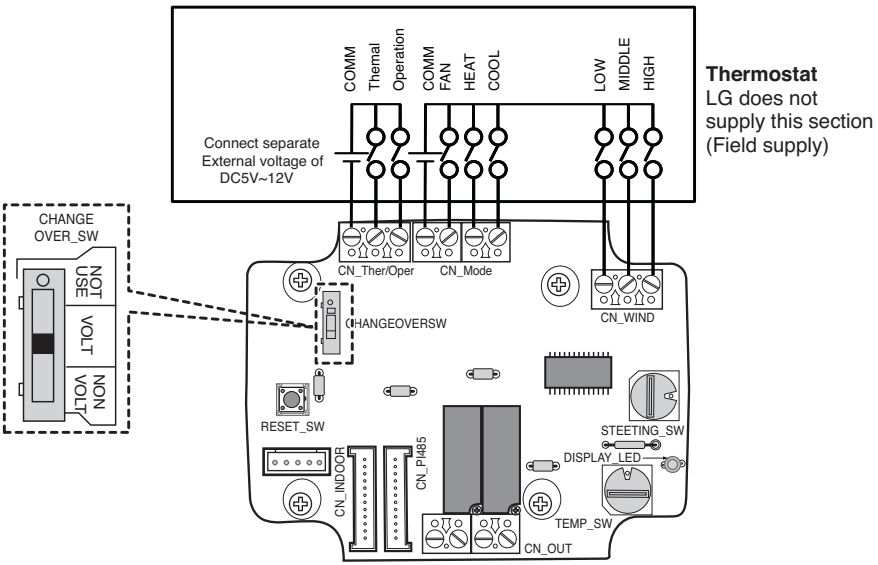
2. Setting of Contact Signal Input

■ For no power contact point signal input



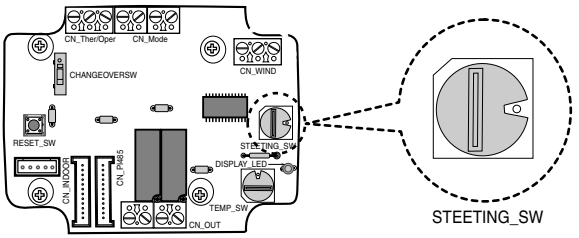
Notes
Do not input the voltage signal in "NON VOLT" setting mode otherwise it will cause serious damage

■ For power contact point signal input



3. Setting of 'SETTING_SW'

■ Using 'SETTING_SW' , select the Option of control Function as described below



<SETTING_SW Function>

No.	WIND Signal en/disable	Thermal en/disable	Oper Mode en/disable	Dry Contact Control Priority
0	Disable	Disable	Disable	Disable
1	Disable	Disable	Disable	Enable[4)]
2	Disable	Disable	Enable[3)]	Disable
3	Disable	Disable	Enable	Enable
4	Disable	Enable[2)]	Disable	Disable
5	Disable	Enable	Disable	Enable
6	Disable	Enable	Enable	Disable
7	Disable	Enable	Enable	Enable
8	Enable [1)]	Disable	Disable	Disable
9	Enable	Disable	Disable	Enable
A	Enable	Disable	Enable	Disable
B	Enable	Disable	Enable	Enable
C	Enable	Enable	Disable	Disable
D	Enable	Enable	Disable	Enable
E	Enable	Enable	Enable	Disable
F	Enable	Enable	Enable	Enable

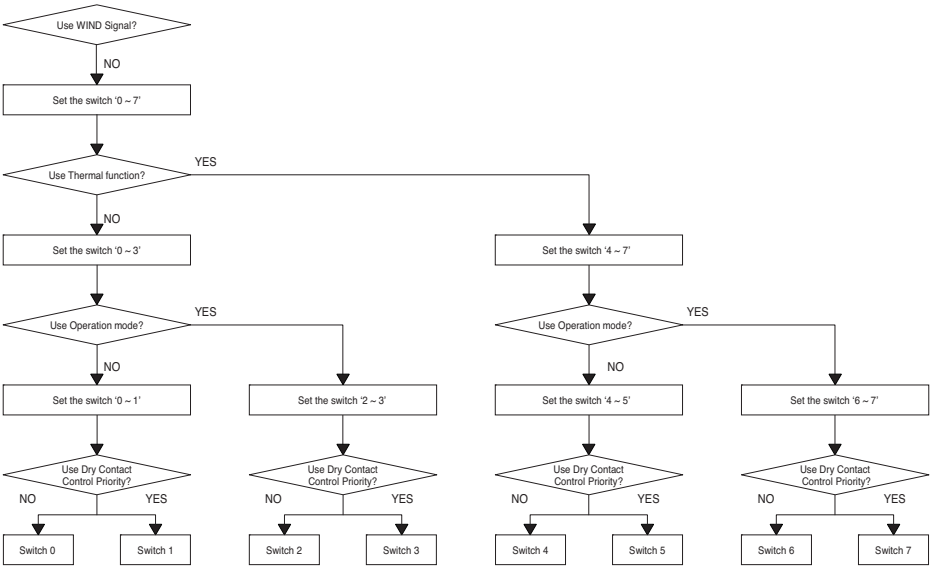
1) Enable CN_WIND signal – Amount of wind flow (Low, Middle, High) signal enable
2) Enable Thermo ON/OFF input signal
   - Desired Temperature 18°C in cooling mode
   - Desired Temperature 30°C in heating mode
   - No function in FAN mode
3) Enable CN_MODE signal – Operation mode (Cool, Heat, Fan) signal enable
4) Enable Thermostat priority control mode – Indoor's remote-controller signal will be disregarded

Notes

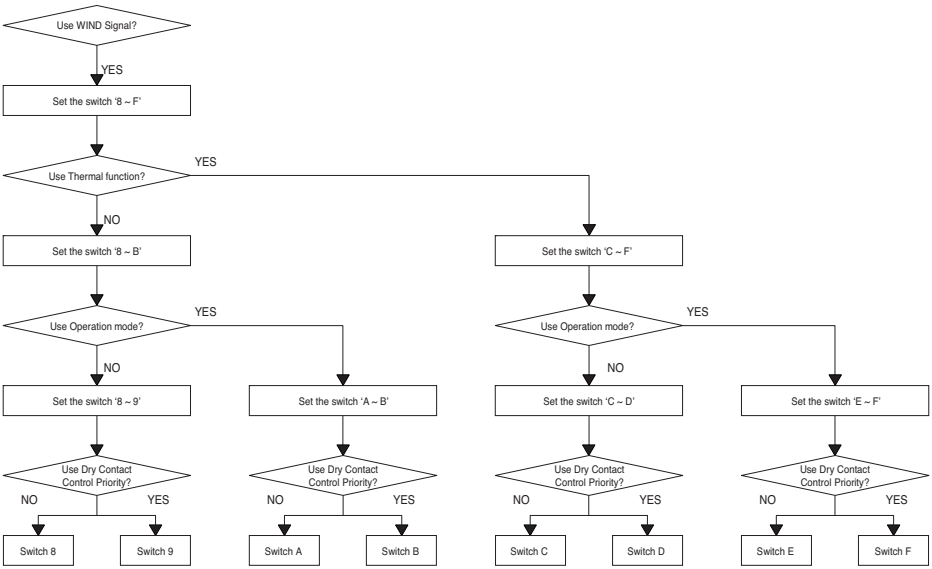
- Information of 'SETTING_SW' is sensed only initial step by Dry contact module therefore , once the configuration changed , Reset of Dry contact module is required.
- After power input or unit's reset , wait 25~30sec(Display LED 10times blinking) for unit stabilization then Dry contact module will operate normally.

■ Flow Chart for 'SETTING_SW'

-. When not using WIND signal



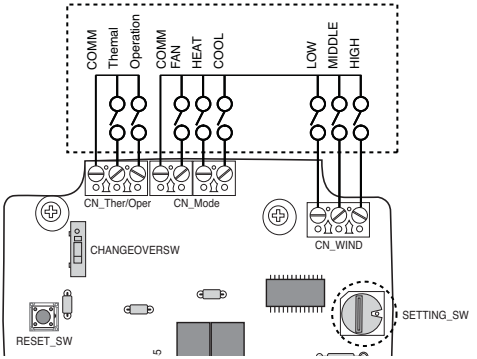
-. When using WIND signal



Notes

- When you change a function with remote control without setting Dry_contact control priority the display condition between remote control and controller can be different.

■ Function table for the selection of 'SETTING_SW' and the input signal



SETTING _SW	CN_MODE input			Function
	FAN	HEAT	COOL	
2,3,6,7,A,B,E,F	0	0	0	NA
	0	0	1	COOL
	0	1	0	HEAT
	0	1	1	NA
	1	0	0	FAN
	1	0	1	NA
	1	1	0	NA
	1	1	1	NA
Others	-	-	-	NA
SETTING _SW	CN_WIND input			Function
	Low	Middle	High	
8,9,A,B,C,D,E,F	0	0	0	NA
	0	0	1	High
	0	1	0	Middle
	0	1	1	NA
	1	0	0	Low
	1	0	1	NA
	1	1	0	NA
	1	1	1	NA
Others	-	-	-	NA
SETTING _SW	CN_Ther/Oper input			Function
	Thermal	Operation		
4,5,6,7,C,D,E,F	0	0		Thermal Off + Stop
	0	1		Thermal Off + Run
	1	0		Thermal On + Stop
	1	1		Thermal On + Run
Others	-	-		NA

Notes

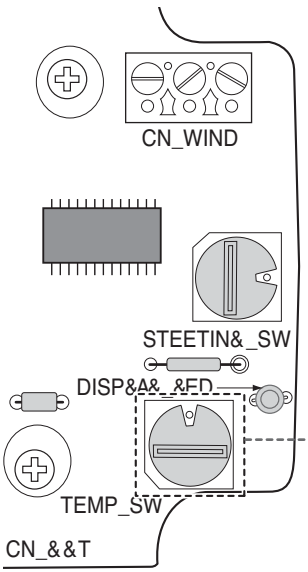
1) Thermal On : This input will change automatically desired temperature
Desired Temperature 18°C In cooling mode
Desired Temperature 30°C In heating mode
No function In FAN mode

4. Setting of 'TEMP_SW'

■ When setting the desired temperature of the Dry contact Module

: When operating the indoor unit using Dry contact module's desired temperature, set the desired temperature according to the 'TEMP_SW' setting.
If Thermostat priority control mode is disabled , the desired temperature can be reset by other controller

- Use the 'TEMP_SW' to set the temperature as shown below.



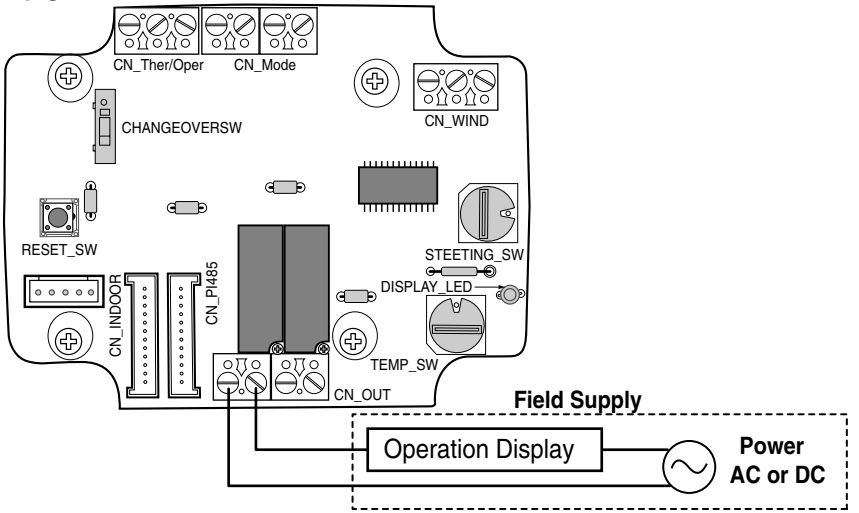
TEMP (°C)	Not use Dry Contact module's Desired temp function	18	19	20	21	22
'TEMP SW' setting	0	1	2	3	4	5

TEMP (°C)	23	24	25	26	27	28	29	30
'TEMP SW' setting	6	7	8	9	A	B	C	D

*. E, F : Reserved

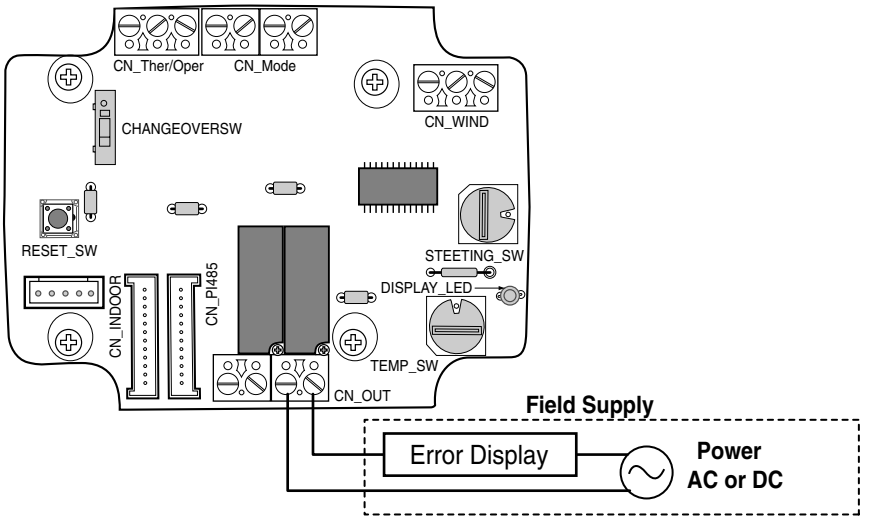
5. Indoor unit monitoring

■ **Monitoring whether the indoor unit is operating: Refer to below and connect to the control device that you want to control.**



(Depends on Operation display power type)

■ **Monitoring indoor unit error: Refer to below and connect to the control device that you want to control.**



(Depends on Error display power type)

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